

STN:Search History Report

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(FILE 'HOME' ENTERED AT 13:16:32 ON 16 JUL 2008)

FILE 'MEDLINE, SCISEARCH, CAPLUS, BIOSIS' ENTERED AT 13:16:45 ON 16 JUL 2008

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L1      53881 S ALGINATE
L2      384506 S POROUS
L3      153738 S COVALENT
L4      10 S L1 (L) L2 (L) L3
L5      4 DUP REM L4 (6 DUPLICATES REMOVED)
L6      1281 S L1 (L) (POLYNUCLEOTIDE? NUCLEIC? OR DNA)
L7      516 S L6 AND PY<=1998
L8      213 DUP REM L7 (303 DUPLICATES REMOVED)
L9      213 FOCUS L8 1-
L10     9 S L9 AND POR?
L11     1024 S L1 (L) L2
L12     357 S L11 AND PY<=1998
L13     4 S L12 AND (NUCLEIC? OR GENE OR DNA OR POLYNUCLEOTIDE? OR PLASMI
E SHEA (L) LONNIE /AU
E SHEA LONNIE/AU
L14     178 S E4
E BONADIO JEFFREY/AU
L15     113 S E3
E MOONEY DAVID/AU
L16     504 S E6
L17     781 S L14 OR L15 OR L16
L18     433 DUP REM L17 (348 DUPLICATES REMOVED)
L19     93 S L18 AND L1
L20     6 S L19 AND L2
L21     38 S L11 AND GAS
L22     90 S L11 AND (GAS OR AIR OR BUB?)
L23     73 DUP REM L22 (17 DUPLICATES REMOVED)
L24     39 S L23 AND PY<=1998
L25     0 S L24 AND (NUCLEIC? OR GENE OR DNA OR POLYNUCLEOTIDE? OR PLASM

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L20     ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
TI      Sustained dna delivery from structural porous matrices for gene
therapy applications with special emphasis is on bone formation and
regeneration
SO      PCT Int. Appl., 144 pp.
CODEN: PIXXD2
IN      Shea, Lonnie D.; Bonadido, Jeffrey; Mooney, David J.
AB      Disclosed are particular 3-dimensional structural matrixes containing DNA and
their use in the prolonged release of DNA in various biol. environments.
The structural matrix is a porous polymer [PLGA]-based containing
pores formed by gas foaming involving inert gases (CO2) and leaching out
of a water-soluble particulate (salt, NaCl, sugar, glucose, sucrose,
mannitol) when exposed to body fluids. The admixt. is compression molded
into a selected size and shape prior to executing the gas foaming process.
The structural matrix may also be an alginate or modified
alginate matrix. This structural matrix is a biocompatible or
biodegradable matrix. It may also be a lactic acid polymer, glycolic acid
polymer or lactic acid/glycolic acid copolymer matrix. At least part of

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this matrix may be comprised of lactic acid/glycolic acid (PLGA) copolymer matrix. The structural matrix may be modified where one side section is bonded to one cell interaction mol. such as cell adhesion mols., cell attachment peptides, proteoglycan attachment peptide sequences, proteoglycans, cell adhesion polysaccharides, growth factors, cell adhesion enzymes, RGD peptide, fibronectin, vitronectin, Laminin A, Laminin B1, Laminin B2, collagen 1 and thrombospondin. The DNA-matrix materials are created such that they maintain a defined space, allowing cellular migration, transfection and proliferation to occur in a controlled manner. Such DNA-containing structural matrices are thus particularly useful in in vivo cell transfection and gene expression in the context of gene therapy. This may encode a protein for stimulating bone progenitors or wound healing in fibroblast or in tissue or organ regeneration or transplantation or an antigen for immunity or cytotoxic or apoptosis-inducing protein or a transcription factor or elongation factor or cell cycle control protein or kinase or phosphatase or DNA repair protein or oncogene or tumor suppressor or angiogenic protein or anti-angiogenic protein or immune response stimulating protein or cell surface receptor or accessory signaling mol. or transport protein or anti-bacterial or anti-viral protein or hormone or neurotransmitter or growth factor or growth factor receptor or interferon or interleukin or chemokine or cytokine or colony stimulating factor or chemotactic factor protein of growth hormone or parathyroid hormone or PTH1-34 polypeptide or bone morphogenic protein or BMP-2A or BMP-2B or BMP-3 or BMP-4 or BMP-5 or BMP-6 or BMP-7 or BMP-8 or TGF- $\alpha$  or TGF- $\beta$ 1 or TGF- $\beta$ 2 or latent TGF $\beta$  binding protein or activin/inhibin protein or FGF or GMCSF or EGF or PDGF or insulin-like growth factor or leukemia inhibitory factor. This method allows for the use in gene transfer to cells within a tissue site and in manufacture of a medicament for gene therapy. Implantable medical devices comprising this gene-matrix are described. The release of nucleic acids from the matrix is controlled by diffusion. This method also applies to cancer therapy or treating viral infection.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9958656	A2	19991118	WO 1999-US10330	19990512
	WO 9958656	A3	20000106		
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BJ, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
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